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# VALVULAR DISEASE OF THE HEART AND CHRONIC RHEUMATISM.

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# VALVULAR DISEASE OF THE HEART AND CHRONIC RHEUMATISM.[1]

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BUT few years after entering on the practice of medicine it seemed to me that chronic rheumatism was a greater factor as a cause of heart-disease than had been pointed out by most authorities. Acting upon this idea, a rather systematic observation of such patients was instituted more than ten years ago, with the result of confirming the idea that cardiac disease was gradually developed as a complication in a large percentage of cases.

Regarding rheumatism as a diathetic malady, it is not strange that visceral entanglements should occur, especially in structures having a texture similar to that of the joints. Indeed, it is eminently proper to look upon rheumatism in any form as the expression of a diathesis or predisposition of the organism to a particular kind of inflammatory activity rather than as resulting from cold, exposure and dampness, as well as improper diet.

[1] See article by author: "Where to Send the Consumptive in Southern California," in New York Medical Journal.

[2] Read by title before the Ohio State Medical Society, May 18, 1894.

In the last ten years I have had every opportunity to observe the course of chronic rheumatism in a number of persons. In all, twenty-five[1] were under study, every one of the number being afflicted with chronic rheumatism from the beginning, there being no history of an attack of acute rheumatic fever. Observations were made weekly or monthly in each case. Eighteen patients gradually acquired heart-disease, seven thus far escaping. True, most of these persons were beyond middle life, and some were in the last quarter, periods in which chronic rheumatism is most likely to develop, also the period in which senile changes were to be expected as the result of a long series of years of hard labor and exposure, in addition to the gradual wane of vitality, with the consequent nutritive alterations in the circulatory system.

There is, so far as am aware, no anatomic reason why the rheumatic habit should not produce ravages in fibrous tissue, though it be located outside the articulations. Just why some should teach that the fibrous rings of the heart and the fibrous material of its valves and arteries have exemption in the chronic form of rheumatism is difficult to understand. But few authorities mention the possibility of complications of the sort; and then the cardiac disease is generally said to have its inception in the acute rheumatic attack that precedes the chronic in many individuals. Fewer still are the writers who ascribe heart-disease directly to chronic rheumatism, pure and simple; but all are willing to believe that

[1] Ranging from thirty to seventy years of age.

the age of the patient at which valvular disease manifests itself has more to do with its production than any diathesis.

In my experience persons with chronic rheumatism for the most part sooner or later manifest some form of heart-disease, and the lesser number escape such a complication. Those in whom it appears being advanced in life, the cause is ascribed to senility and not to rheumatism. On the other hand, the majority of old persons that have never had rheumatism of any kind do not exhibit alterations of the heart more frequently than of any other organ or structure. And yet it seems scarcely possible for a person of seventy years with chronic rheumatism to escape without some lesion of the endocardium. Out of a great many patients affected with the acute disease it has been my fortune to see but few have pericardial or endocardial complications from a single or subsequent attack; but individuals subject to repeated or recurring seizures do for the most part become victims of heart-disease, more especially when in the interval between acute invasions they suffer more or less with subacute or chronic articular inflammation.

These facts demonstrate the essentially diathetic nature of the disease, just as a case of acute pericarditis or endocarditis may be soon followed by acute articular rheumatism; or, as I have a few times seen, an individual with a chronic valvular lesion, evidently rheumatic in character, may acquire chronic rheumatism of the joints. This habit, if not hereditary, is quite readily acquired by some persons who seem to require less exposure, dietary

errors, and dampness than other persons to induce an attack.

On the theory that rheumatism is the result of diathesis, it is reasonable that the same *materies morbi* which, by its presence or influence, alters the nutrition of the fibrous structure of joints, would, by constant circulation in the blood, gradually manifest itself in other fibrous tissues, especially in the heart, as this organ is unremittingly exposed to its influence.

The difference between acute and chronic rheumatism resides in the intensity and duration of the disease. They seem to be the same, modified by the patient's inherent power of resistance. Be that product of the individual peculiarity uric or lactic acid, or both, or whatever it may be, it has a predilection for fibrous and fibro-serous tissues. If one form is specific, the other is specific; the cause consisting either in the production within the body of morbid matter from interference with excretion from continued exposure to cold and wet or in the elaboration of toxins from improper food. These facts are far from establishing the specific nature of rheumatism. They more clearly demonstrate its constitutional character. The general type of the acute form is shown by the thoracic and abdominal complications that often occur, as well as keratitis and iritis, and by its affinity for the nervous system in the occasional production of chorea. So in the chronic variety. In this form the occurrence of thoracic and abdominal troubles due to a rheumatic cause are pretty well recognized.

In addition to these facts, it is reasonable to suppose that it has been the experience of other physicians,

in common with myself, to have observed headaches in chronic rheumatic patients that were not due to disease of heart, liver, stomach, or kidney, but subject to the variations of barometric pressure and relievable only by anti-rheumatic treatment, dietary, sanitary and medicinal. Our experiences have, no doubt, coincided in that we have once in a while seen a case of chronic rheumatism persist for four or five years and then vanish as mysteriously as it came-leaving the patient little the worse for the visitation except for a stiff joint or so.

Our common experience is to see the gradual deterioration wrought by primary continuous chronic rheumatic disease; joints becoming weaker and stif, fer; structural changes in ligaments, and capsules becoming more pronounced and accompanied by pain of variable severity, and yet the general health of the patient remain quite good, although he is unable to work and is hardly able to walk without crutch or cane. Chronic rheumatism is said to scarcely ever kill. This may be true. But it has seemed to me to do the reverse by inducing endocardial and arterial changes that result in stenosis, insufficiency or endarteritis, that indirectly do kill, or else I have had more than my share of coincidences, or am wofully shortsighted.

Complete recovery hardly ever occurs except in recent and mild cases which are removed from the conditions that feed the rheumatic habit, and thus receive permanent improvement, if not cure. Those that have had the disease for but a comparatively short time should not be discouraged with the idea of its incurability, but should rather have pointed

out to them a possible means of escape, if not from the entire disease itself, at least from its ultimate consequences, by permanent arrest. For those cases that have become confirmed and intractable and have as yet shown no cardiac disturbance, as large a degree of immunity as possible should be secured against such complications. And when heart-disease has developed, its consequences should be avoided so far as they can be. In these latter cases we can secure the good effect of internal medication : namely, that directed to the cardiac complication, and that is the persistent use of digitalis.

Medicines do little good for chronic rheumatism. Its best treatment consists in massage, electricity, baths and diet. Elimination is the watchword in this disease. Massage, through its effect on the circulation favors excretion, as do baths, by stimulating the skin. The utility of diuretics and laxatives cannot be overlooked. The diet should be as nearly vegetarian as possible to preclude the introduction of toxic ptomaïns or their production within the alimentary canal. This paper is, however, not devoted to the treatment of chronic rheumatism, but rather to point out in a feeble way one of its most fearful consequences. The lesions of the heart do not differ in their symptoms from those due to other causes, and, like those arising in the acute disease, have a more favorable prognosis than those resulting from degenerative changes that are necessarily progressive.

Perhaps they are more amenable to arrestive treatment than the acute, as their growth or development

is slow; but once developed to any degree they are permanent, their situation determining their gravity. If in the management of this disease these lesions could be avoided our work will not have been in vain.